

## REMARKS

This amendment is pursuant to a filing of an RCE in order to define the claimed invention of Independent claims 1 and 12 as a structure and method wherein the optical fibers 11-18 are bonded into the recesses 31-38.

The claims define over the reference to Ames (US 6,774,354) as they define subject matter not available or obvious from Ames. Claims 1 and 12 require the optical fibers 11-18 to be “arranged in the recesses and bonded into respective ones of said recesses” 31-38 which are “introduced into the surface of the workpiece”. Ames has a pitch sensor where the relative movement of the mass 16 (workpiece) being measured in relation to the cage 14 by Bragg sensors. As a result the optical fibers of Bragg are fixed to the cage 14 and **must not be fixed** (integrated) on the surface of the workpiece so that tension can be generated in the optical fibers at gratings. If the optical fibres were bonded to the mass, tension would occur in the optical fibers at a location between the mass and the cage. Therefore **in Ames the optical fibers must be mounted so as to be movable relative to the mass (workpiece)**. The optical fibers do not measure the tension on the surface of the mass or the cage.

The present invention in contrast provides and arrangement for measuring tension in the surface of a workpiece. The tension resulting from

vibration, temperature changes or load in the surface are induced into the optical fibers which must be integrated into the surface.

In order to more clearly relate the distinguishing features between the claimed invention and the references, the amended claims define the bonding of the fibers within the recesses.

Accordingly, not only does Ames fail to disclose the presently claimed invention but Ames also provides a disclosure which would not function if modified to meet the claim limitations of the present invention as defined by independent claims 1 and 12 and the dependent claims 2, 5-11, 15, 17 and 19-20 which depend from and contain all the limitations of either claim 1 or claim 12.

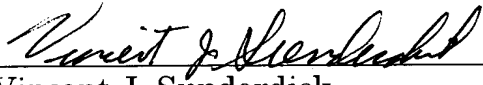
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

Serial No. 10/646,708  
Amendment Dated May 22, 2006  
Reply to Office Action Mailed April 28, 2006  
Attorney Docket No. 038741.52686US

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #011235.52686US).

Respectfully submitted,

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